

KENWOOD

Instruction Manual



UHF FM TRANSCEIVER

TK-3130

ProTalkxLS

KENWOOD CORPORATION

© B62-1486-00 (K)

09 08 07 06 05 04 03 02 01 00

THANK YOU

We are grateful for your purchase of this **KENWOOD** product and welcome you to the Business Radio Service (BRS). Your **KENWOOD** 2-way Business Radio is called a “transceiver”, meaning “transmitter & receiver”. We believe this easy-to-use transceiver will provide you with dependable and reliable communications. This **KENWOOD** transceiver is a precision device. Treat it with care, and you will enjoy years of reliable operation.

FEATURES

- 2 channels with 121 tone/code settings for each channel, allowing you to ignore unwanted calls.
- Voice scrambler, giving you complete privacy for your conversations.
- Automatic battery power saver, providing you with longer battery usage.
- Low battery power warning.
- Key lock, preventing you from accidentally changing your transceiver settings.
- Hands free operation when using an optional headset.

OPERATING CONDITIONS

Open locations (no obstructions)	Up to 4 miles (approximately 6 1/2 km)
Residential areas (near buildings)	Up to 1 1/2 miles (approximately 2 1/2 km)
In steel/ concrete reinforced buildings	Up to 200,000 square feet (approximately 18,580 m ²)
In high rises	Up to 15 floors

Note: The listed ranges are based on field testing and may vary with individual transceivers.

FCC LICENSE INFORMATION

Your **KENWOOD** radio operates on communications frequencies which are subject to FCC (Federal Communications Commission) Rules & Regulations. FCC Rules require that all operators using Private Land Mobile radio frequencies obtain a radio license before operating their equipment. Application for license must be made on FCC form 600, and schedules D, E, and G.

FAX: Forms can be obtained by fax from the FCC Fax-On-Demand system. Call 1-202-418-0177 from your fax machine and request document number 000600 for the form, schedules, and instructions.

MAIL: Forms can be ordered by telephone, and will be sent to you by first class mail. Call the FCC Forms Hotline at 1-800-418-FORM (1-800-418-3676).

INTERNET: Form 600 and instructions can be downloaded from the FCC Forms website at:
<http://www.fcc.gov/formpage.html>

Before filling out your Form 600 application Technical Data section, you must decide which frequency (or frequencies) you will operate on. Refer to the frequency chart on page 26.

Questions? Call the FCC for license application questions at 1-888-CALL-FCC (1-888-225-5322).

BANDS

FCC Regulations require that most new licenses must be operating on 12.5 kHz channel spacing capable radios. The ProTalk_{XLS} radio operates on 12.5 kHz channel spacing and may not have optimal sound quality when used with radios operating on 25 kHz channel spacing. If you have any questions, call Kenwood Product Services:

1-800-NNN-NNNN

PRECAUTIONS

- Refer service to qualified technicians only. Do not modify or attempt to adjust the transceiver for any reason.
- Do not expose the transceiver to long periods of direct sunlight, nor place it close to heating appliances.
- Do not place the transceiver in excessively dusty, humid, or wet areas, nor on unstable surfaces.
- Avoid extremes in exposure to weather, heat, and cold. This transceiver can be used in mild weather conditions, but it is not waterproof.
- Turn OFF your transceiver while taking on fuel or while parked in gasoline service stations.
- Do not operate your transceiver or charge your battery pack in an explosive atmosphere (gases, dust, fumes, etc.).
- If an abnormal odor or smoke is detected coming from the transceiver, immediately switch OFF the power and remove the batteries from the transceiver. Contact your **KENWOOD** dealer.

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| <ul style="list-style-type: none">◆ Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.◆ Illegal operation is punishable by fine and/or imprisonment |
|--|

SAFETY: It is important that the operator is aware of and understands hazards common to the operation of any transceiver.

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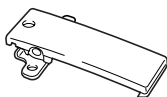
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UNPACKING AND CHECKING EQUIPMENT

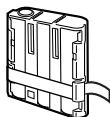
Carefully unpack the transceiver. We recommend you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

SUPPLIED ACCESSORIES

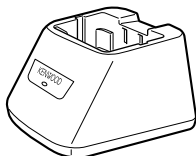
Item	Part Number	Quantity
Belt hook (with screws)	J29-0691-XX	1
Battery pack	W09-0986-XX	1
Rapid charger	W08-0938-XX	1
AC adapter	W08-0937-XX	1
Warranty card	—	1
Instruction manual	B62-1486-XX	1



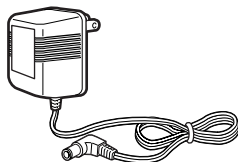
Belt hook (with screws)



Battery pack

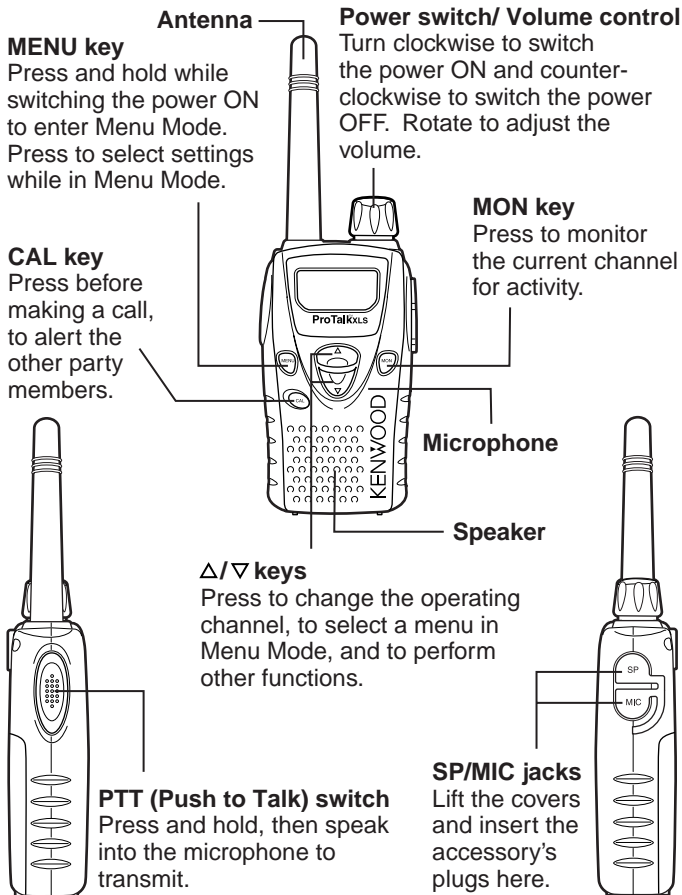


Rapid charger



AC adapter

ORIENTATION



DISPLAY

PREPARATION

INSTALLING/ REMOVING THE BATTERY PACK

The battery pack is not charged at the factory; charge it before use (pages 6 and 7).

Average battery pack life: 10 hours

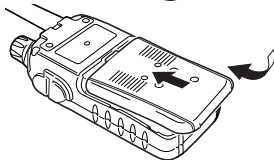
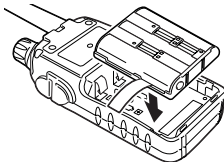
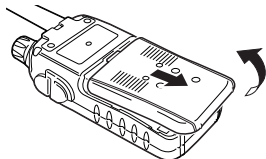
- Average times are calculated using 5% transmit time, 5% receive time, and 90% standby time.



CAUTION

- ◆ Do not short the battery terminals or dispose of the battery by fire.
- ◆ Never attempt to remove the casing from the battery pack.

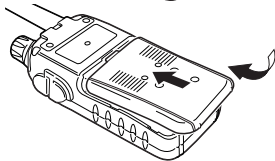
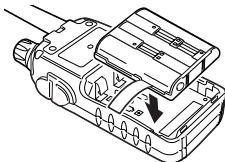
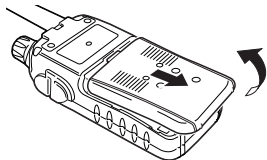
- 1 Match the four grooves of the battery pack with the corresponding guides on the back of the transceiver.
- 2 Slide the battery pack along the back of the transceiver until the release latch on the base of the transceiver locks.
- 3 To remove the battery pack, pull back on the release latch and slide the pack away from the transceiver.



INSTALLING/ REMOVING BATTERIES

In place of the battery pack, you can use 3 AA batterie. Use high quality alkaline batteries to enjoy longer periods of battery life.

- 1 Match the four grooves of the battery pack with the corresponding guides on the back of the transceiver.
- 2 Slide the battery pack along the back of the transceiver until the release latch on the base of the transceiver locks.
- 3 To remove the battery pack, pull back on the release latch and slide the pack away from the transceiver.



CHARGING THE BATTERY PACK

Initially charging the battery pack after purchase or extended storage (greater than 2 months) will not bring the battery pack to its normal operating capacity. After repeating the charge/discharge cycle two or three times, the operating capacity will increase to normal.



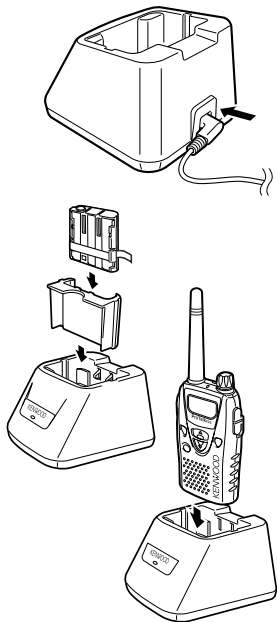
CAUTION

- ◆ Do not recharge the battery pack if it is already fully charged. Doing so may cause the life of the battery pack to shorten or the battery pack may be damaged.
- ◆ After recharging the battery pack, disconnect it from the charger. Charging the battery pack for more than 5 days may reduce the battery pack life due to overcharging.

Note:

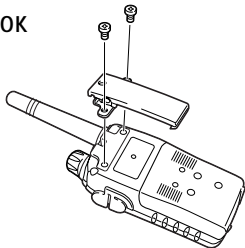
- ◆ The ambient temperature should be between 41°F and 104°F (5°C and 40°C) while charging is in progress. Charging outside this range may not fully charge the battery.
 - ◆ Always switch OFF the transceiver equipped with a battery pack before charging. Using the transceiver while charging its battery pack will interfere with correct charging.
 - ◆ The battery pack life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery pack.
-

- 1 Plug the AC adapter cable into the adapter jack located on the rear of the charger.
- 2 Plug the AC adapter into an AC outlet.
- 3 Slide a battery pack using the supplied holder or a transceiver equipped with a battery pack into the battery pack slot.
 - Make sure the metal contacts of the battery pack mate securely with the charger terminals.
 - The indicator lights red and charging starts.
- 4 When charging is completed, the indicator lights green. Remove the battery pack or the transceiver from the battery pack slot.
 - It takes approximately 2.5 hours to charge the battery pack.
 - When the charger will not be used for a long time, unplug the AC adapter from the AC outlet.
 - When charging a second battery pack, wait for approximately 10 seconds after removing the first battery pack from the charger. If the LED blinks red after installing the second battery pack, remove the battery pack and wait for a few seconds before inserting it again.



INSTALLING/ REMOVING THE BELT HOOK

If desired, attach the belt hook to the rear of the transceiver using the 2 supplied screws.



INSTALLING/ REMOVING OPTIONAL ACCESSORIES

Note: Always switch OFF the transceiver power when installing or removing the optional accessories.

The following accessories can be used with this transceiver:

- KMC-21 Speaker-Microphone
- KHS-21 Headset
- EMC-3 Clip Microphone with Earphone

To install these accessories:

- 1 Open the **SP/MIC** tabs on the side of the transceiver.
- 2 Insert the accessory's plugs into the **SP/MIC** jacks.
- 3 When you remove the accessory from the transceiver, be sure to cover the **SP/MIC** jacks with the attached tabs in order to keep dust and dirt away from the contacts.

Note: Refer to the accessory instruction manuals for detailed instruction on each of the accessories.

GETTING STARTED

① Switch the Power ON.

Switch the transceiver power ON by turning the **Power** switch/ **Volume** control clockwise.

- A confirmation tone sounds.

To switch the transceiver power OFF, turn the **Power** switch/ **Volume** control fully counterclockwise, until a click sounds.

② Adjust the Volume.

Set your desired volume level by rotating the **Power** switch/ **Volume** control.

- Clockwise increases the volume and counterclockwise decreases the volume.

Note: To adjust the volume using background noise as a reference, use the monitor function (page 14).

③ Select a Channel.

Select channel 1 or 2 by pressing the ▲ or ▼ key.

- A confirmation tone sounds each time you press the ▲ or ▼ key.
- When you receive a call on your selected channel, you will hear audio from the speaker and the LED will light green.
- To use a signalling code, refer to “QUIET TALK/ DIGITAL QUIET TALK” on page 11.

You can change the frequency of each channel:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver ON (for 1 second).
- 3 Press the ▲ or ▼ key to select the frequency setting menu.
 - The channel number appears with “F” and the current frequency number.
- 4 Press the **MENU** key to select “1-F1” (channel 1, frequency number 1) to “1-F8” (channel 1, frequency number 8) or “2-F1” (channel 2, frequency number 1) to “2-F8” (channel 2, frequency number 8).
 - Refer to page 31 for the frequencies available for each channel.
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

④ Make a Call.

- 1 Press and release the **CAL** key to alert the other parties that you are making a call.
 - A call tone will sound on the other party’s transceiver.
- 2 Press and hold the **PTT** switch, then speak into the microphone to transmit.
 - The LED lights red while transmitting.
 - For best sound quality, speak into the microphone in your normal speaking voice while holding the microphone approximately 1.5 inches (3 to 4 cm) from your lips.
- 3 Release the **PTT** switch when you have finished speaking.

QUIET TALK/ DIGITAL QUIET TALK

QT (Quiet Talk) and DQT (Digital Quiet Talk) are functions that reject signals from undesired parties that are using the same channel as you. You will hear audio from the speaker only when you receive a signal that contains a tone or code matching the one set up on the channel you are using. Likewise, when you transmit on a channel set up with QT or DQT, the receiving station must have a matching tone or code in order to hear your signal.

You can select a tone or code for each channel. There are 38 QT tones (1 to 38) and 83 DQT codes (DQT1 to DQT83). After changing the QT/ DQT setting, confirm that the other members in your group have selected the same tone or code.

- 1 Press the **MENU** key.
 - The current setting blinks.
- 2 Press the **▲** or **▼** key to select your desired value.
 - The values range from 1 to 38 for QT tones, then proceed to 1 to 83 for DQT codes. When you use a DQT code, the DQT icon appears on the display.
 - “OF” means you have turned off both QT and DQT.
 - Refer to pages 24 and 25 for the actual QT tones and DQT codes.
- 3 Press the **MENU** key 3 times, or press the **PTT**, **MON**, or **CAL** key to confirm the setting.

SCANNING THE CHANNELS

You can scan both channels of the transceiver to search for a signal. When the transceiver verifies a signal on a channel, it proceeds to check whether or not its QT/ DQT setting matches that which is set up on your transceiver. If the QT/ DQT matches, the transceiver stops at the channel and opens the squelch so you can listen to the call. If the QT/ DQT does not match, the call is ignored and scanning continues.

To begin scanning:

- 1 Press and hold the ▲ key for 1 second.
 - SCAN appears on the display.
- 2 When a signal is detected and the QT/ DQT matches, the channel number appears on the display and blinks.
- 3 When the signal is no longer present, the transceiver waits for 5 seconds before scanning continues.
 - If a new signal appears before the 5 seconds elapse, the transceiver will remain on the channel until the signal is no longer present again, at which time it will again wait for 5 seconds before continuing.
- 4 To end the scan at any time, press and hold the ▲ key for 1 second.
 - The transceiver returns to the channel you were using before you started scanning.

You can turn the scan function (the ability to perform scan) ON or OFF in Menu Mode:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the **▲** or **▼** key to select "SC".
- 4 Press the **MENU** key to select "SC-OFF" (scan function off) or "SC-On" (scan function on).
 - If you select "SC-OFF", you will no longer be able to perform scan by pressing and holding the **▲** key.
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

REVERT CHANNEL

During scan, pressing the **PTT** switch will automatically select the transceiver's revert channel and you will begin transmitting. However, if you are currently paused at a channel, pressing the **PTT** switch will allow you to transmit on your current channel, rather than returning to the transceiver's revert channel.

After transmitting on either your current channel or the revert channel by pressing the **PTT** switch, the transceiver will wait for 5 seconds before scanning continues. If a signal is present on the channel before the 5 seconds elapse, the transceiver remains on the channel until the signal is no longer present. It then continues to function the same as while scanning.

MONITORING A CHANNEL

When no signals are present, the squelch on the transceiver automatically mutes the speaker so you will not hear background noise. To manually deactivate the squelch, press and hold the **MON** key.

- When deactivated, the monitor icon appears on the display and the LED lights green.

To return to normal operation, simply release the **MON** key.

VOICE ACTIVATED CONTROL (VOX)

Using the VOX feature, you can operate the transceiver hands-free. In order to use this feature, however, you must use an optional headset; VOX will not function with the built-in microphone. For best operation conditions, we recommend you use an optional headset with both an ear piece and a microphone on a boom that rests in front of your mouth.

With VOX activated, your voice level will determine when the transceiver transmits. Because of this, you must take care that the ambient noise around you is not so loud that it causes the transceiver to transmit. Due to the automatic switching between transmission and reception, we recommend you set the VOX gain such that it will not activate transmission when in an area with excessive ambient noise.

To operate using VOX:

- 1 Set up a VOX gain level from 1 to 3 (page 15).
- 2 To transmit, simply speak into the microphone.
 - You do not need to press the **PTT** switch; the transceiver automatically detects your voice and begins transmitting.
- 3 To stop transmitting, stop speaking.
 - Transmission will continue momentarily after you stop speaking. You can select the delay time as described on page 15.
- 4 To exit VOX mode, set the VOX gain level (page 16) to "GL-OFF" (OFF).

To enjoy the VOX function, take the time to properly adjust the VOX Gain. This level controls the VOX circuit to detect the presence or absence of your voice.

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “GL”.
- 4 Press the **MENU** key to select “GL-OFF” (VOX function is off) or “GL-1” (VOX gain level 1) to “GL-3” (VOX gain level 3).
 - While adjusting the VOX Gain, the LED lights orange.

Note: Setting the VOX gain to OFF deactivates VOX. In order to transmit with VOX turned off, you must use the **PTT** switch.

- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

If the transceiver returns to receive mode too quickly after you stop speaking, the end of your message may not be transmitted. To avoid this, select an appropriate delay time that allows your entire message to be transmitted. However, do not make the delay overly long.

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “dY”.
- 4 Press the **MENU** key to select “dY-0.1” (hold for 100 ms), “dY-0.3” (300 ms), “dY-0.5” (500 ms), “dY-1.0” (1 second), “dY-1.5” (1.5 seconds), or “dY-3.0” (3 seconds).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

While using VOX, you can set the transceiver to detect when the channel is busy. With this function turned on, VOX will not allow you to transmit while the channel is being used. You can transmit only when the channel is free.

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “bU”.
- 4 Press the **MENU** key to select “bU-On” (busy detection turned on) or “bU-OF” (busy detection turned off).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

VOICE SCRAMBLER

Whereas the Quiet Talk and Digital Quiet Talk functions give you privacy in so much that you are able to ignore unwanted calls, the voice scrambler gives you complete privacy. When activated, any other party listening on your channel and using the same QT/ DQT settings that you have on your transceiver will be unable to understand your conversation.

In order for members of your group to understand your call while you are using the voice scrambler, all other members must also activate their voice scramblers. This function both scrambles and unscrambles voice messages.

- 1 Press the **MENU** key 2 times.
 - The “PRIVACY” icon appears on the display and blinks.
- 2 Press the ▲ or ▼ key to select “On” (privacy on) or “OF” (privacy off).
- 3 Press the **MENU** key 2 times, or press the **PTT**, **MON**, or **CAL** key to confirm the setting.

OPERATING FEATURES

TRANSMISSION POWER

You can adjust the transmission power on all channels. Selecting low power will allow longer use of the battery pack. Selecting high power will allow you to transmit farther, in case the other party is too far away for low power usage.

To change the transmission power:

- 1 Press the **MENU** key 3 times.
 - The “LOW” icon and “LO” appear on the display when low power is selected. No icon and “HI” appear for high power.
- 2 Press the ▲ or ▼ key to select your desired output power.
- 3 Press the **MENU** key 1 time to confirm the setting.

KEY LOCK

You can lock the **MENU**, ▲, and ▼ keys to prevent accidentally changing the operating mode and the channel settings.

Press and hold the **MENU** key for 1 second to lock or unlock the transceiver keys.

- The key lock icon appears on the display when the transceiver keys are locked. No icon appears when they are unlocked.

DISPLAY ILLUMINATION

You can set the display illumination to remain off, remain on, or turn on when you press any key other than the **PTT** switch (auto). When set to auto, the lamp remains on for 5 seconds after pressing a key before turning off again.

To turn the display backlight ON:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “LP”.
- 4 Press the **MENU** key to select “LP-OFF” (lamp off), “LP-On” (lamp on), or “LP-A” (lamp auto).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

TIME-OUT TIMER

The purpose of the Time-out Timer is to prevent any single person from using a channel for an extended period of time. If you continuously transmit for 3 minutes (default value), the transceiver will stop transmitting and a tone will sound. To stop the tone, release the **PTT** switch. You can press the **PTT** switch again to resume transmitting.

This transceiver is also equipped with a pre-alert tone which sounds 10 seconds before the Time-out Timer expires. This will allow you time to finish your transmission before the transceiver automatically cuts out.

To change the default value of 3 minutes:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the **▲** or **▼** key to select “tO”.
- 4 Press the **MENU** key to select “tO-3” (3 minutes) or “tO-10” (10 minutes).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

BATTERY POWER SAVER

This transceiver has been designed to give you the most out of your battery power. While using the transceiver, the battery saver will automatically switch ON after 10 seconds have elapsed with no operations or received calls. Operating the transceiver or receiving a call will switch this feature OFF until 10 seconds of non-operation occurs again.

You can turn this function ON or OFF:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “bS”.
- 4 Press the **MENU** key to select “bS-On” (battery save on) or “bS-OF” (battery save off).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

BATTERY INDICATOR

When turned ON, the battery indicator on the display lets you know approximately how much battery life is remaining. When turned OFF, the battery indicator will appear and blink only when the battery voltage level is low.

When the battery voltage becomes too low while transmitting, the transceiver stops transmitting and a tone sounds until you release the **PTT** switch. Recharge or replace the battery pack at this time.

High battery power

Medium battery power

Low battery power

Time to recharge the battery pack

Note: This feature does not measure the accurate battery voltage when using alkaline batteries. When using alkaline batteries in place of the supplied battery pack, turn this function OFF.

You can turn this function ON or OFF:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “bT”.
- 4 Press the **MENU** key to select “bT-On” (battery indicator on) to “bT-OF” (battery indicator off).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

CALL TONES

Call tones are used to alert you as to when a party member is beginning a call. You can set up a call tone to one of 6 types in order to easily identify yourself to your party members. If each party member uses a different call tone, it is easy to know who is making the call.

To set up your own call tone:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “CA”.
- 4 Press the **MENU** key to select “CA-1” (call alert tone 1) to “CA-6” (call alert tone 6).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

CALL ALERT

It is also possible to set up your transceiver so that you are alerted using vibration. When vibration alert is activated, the vibration icon appears on the display.

To select your received alert tone method:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the ▲ or ▼ key to select “Ct”.
- 4 Press the **MENU** key to select “Ct-1” (normal alert tone sounds), “Ct-2” (you are alerted by vibration), “Ct-OF” (no alert tone or vibration), or “Ct-3” (you are alerted by both the tone and vibration).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

Note: If you use alert tone and/or vibration, you must set a QT tone or a DQT code (page 11).

BUSY CHANNEL LOCKOUT

This function is used in order to prevent transmitting on a channel that somebody else is currently using. When turned ON, a beep sounds when you press the **PTT** switch while another party is using the channel, and you cannot transmit.

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the **▲** or **▼** key to select “bL”.
- 4 Press the **MENU** key to select “bL-On” (busy channel lockout on) or “bL-OF” (busy channel lockout off).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

TRANSCIVER BEEP

On various occasions (such as when you turn the transceiver power ON), a beep will emit from the transceiver. If desired, you can turn this feature off:

- 1 Turn the transceiver power OFF.
- 2 Press and hold the **MENU** key while turning the transceiver power ON (for 1 second).
- 3 Press the **▲** or **▼** key to select “bP”.
- 4 Press the **MENU** key to select “bP-On” (beep on) or “bP-OF” (beep off).
- 5 Press the **PTT**, **MON**, or **CAL** key to exit Menu Mode.

NOTICES TO THE USER

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

One or more of the following statements may be applicable:

FCC WARNING

This equipment generates or uses radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

INFORMATION TO THE DIGITAL DEVICE USER REQUIRED BY THE FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can generate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer for technical assistance.

SAFETY INFORMATION:

Your wireless hand-held portable transceiver has been designed using a low power transmitter.

When the **PTT** switch is pressed, the transceiver generates radio frequency (RF) electromagnetic energy (EME).

This transceiver is designed to comply with the FCC Report and Order FCC 96-326 (August, 1996).



CAUTION

- Do not transmit for more than 50% of the total operating time. Transmitting for over 50% of the operating time may exceed the FCC RF exposure compliance requirements. Transmission occurs while you are pressing the PTT switch and is confirmed by the LED that lights red while transmitting.
- To transmit, speak into the microphone in your normal voice while holding the transceiver upright and keep the antenna at least 2 inches (5 cm) from your head and body.
- When using a headset, ensure that the antenna is at least 2 inches (5 cm) away from your body whenever you are transmitting.
- Use only **KENWOOD** genuine accessories. Unauthorized modifications, or attachments may damage the transceiver and violate FCC rules and regulations.

QT TONES/ DQT CODES

Display Number	Quiet Talk Frequency	Display Number	Quiet Talk Frequency	Display Number	Quiet Talk Frequency
OFF	OFF	13	103.5 Hz	26	162.2 Hz
1	67.0 Hz	14	107.2 Hz	27	167.9 Hz
2	71.9 Hz	15	110.9 Hz	28	173.8 Hz
3	74.4 Hz	16	114.8 Hz	29	179.9 Hz
4	77.0 Hz	17	118.8 Hz	30	186.2 Hz
5	79.7 Hz	18	123.0 Hz	31	192.8 Hz
6	82.5 Hz	19	127.3 Hz	32	203.5 Hz
7	85.4 Hz	20	131.8 Hz	33	210.7 Hz
8	88.5 Hz	21	136.5 Hz	34	218.1 Hz
9	91.5 Hz	22	141.3 Hz	35	225.7 Hz
10	94.8 Hz	23	146.2 Hz	36	233.6 Hz
11	97.4 Hz	24	151.4 Hz	37	241.8 Hz
12	100.0 Hz	25	156.7 Hz	38	250.3 Hz

Display Number	Digital Quiet Talk Code	Display Number	Digital Quiet Talk Code	Display Number	Digital Quiet Talk Code
DQT 1	023	DQT 29	174	DQT 57	445
DQT 2	025	DQT 30	205	DQT 58	464
DQT 3	026	DQT 31	223	DQT 59	465
DQT 4	031	DQT 32	226	DQT 60	466
DQT 5	032	DQT 33	243	DQT 61	503
DQT 6	043	DQT 34	244	DQT 62	506
DQT 7	047	DQT 35	245	DQT 63	516
DQT 8	051	DQT 36	251	DQT 64	532
DQT 9	054	DQT 37	261	DQT 65	546
DQT 10	065	DQT 38	263	DQT 66	565
DQT 11	071	DQT 39	265	DQT 67	606
DQT 12	072	DQT 40	271	DQT 68	612
DQT 13	073	DQT 41	306	DQT 69	624
DQT 14	074	DQT 42	311	DQT 70	627
DQT 15	114	DQT 43	315	DQT 71	631
DQT 16	115	DQT 44	331	DQT 72	632
DQT 17	116	DQT 45	343	DQT 73	654
DQT 18	125	DQT 46	346	DQT 74	662
DQT 19	131	DQT 47	351	DQT 75	664
DQT 20	132	DQT 48	364	DQT 76	703
DQT 21	134	DQT 49	365	DQT 77	712
DQT 22	143	DQT 50	371	DQT 78	723
DQT 23	152	DQT 51	411	DQT 79	731
DQT 24	155	DQT 52	412	DQT 80	732
DQT 25	156	DQT 53	413	DQT 81	734
DQT 26	162	DQT 54	423	DQT 82	743
DQT 27	165	DQT 55	431	DQT 83	754
DQT 28	172	DQT 56	432		

CHANNEL FREQUENCY CHART

Frequency Number	Transmit/ Receive Frequency	Color/Code
F1	464.5000 MHz	Brown
F2	464.5500 MHz	Yellow
F3	467.7625 MHz	J
F4	467.8125 MHz	K
F5	467.8500 MHz	Silver Star
F6	467.8750 MHz	Gold Star
F7	467.9000 MHz	Red Star
F8	467.9250 MHz	Blue Star

Note: The default channel settings are F2 for channel 1 and F8 for channel 2.

TROUBLESHOOTING GUIDE

Problem	Solution
Cannot turn the transceiver power ON.	<ul style="list-style-type: none"> • The batteries or battery pack may be dead. Replace the batteries or recharge or replace the battery pack. • The battery pack may not be installed correctly. Remove the battery pack and install it again.
Battery power dies shortly after charging.	<ul style="list-style-type: none"> • The battery pack life is finished. Replace the battery pack with a new one.
Cannot talk to or hear other members in your group.	<ul style="list-style-type: none"> • Make sure you are using the same frequency and QT/ DQT setting as the other members in your group. • Other group members may be using private mode. Turn on your transceiver's voice scrambler. • Other group members may be too far away. Make sure you are within range of the other transceivers.
Other voices (besides group members') are present on the channel.	<ul style="list-style-type: none"> • Change the QT/ DQT settings. Make sure all group members change the settings on their transceivers to match the new QT/ DQT setting.
The transceiver is malfunctioning for no apparent reason.	<ul style="list-style-type: none"> • Reset the transceiver as follows: <ol style="list-style-type: none"> 1) Turn the transceiver power OFF. 2) Press and hold the ▲, ▼, and MON keys while turning the transceiver power back ON. <p>Note: All the transceiver data will be reset to the factory default settings.</p>

